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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/978,600

DATE: 11/28/2001

TIME: 17:13:37

Input Set : A:\09978600.raw.txt

Output Set: N:\CRF3\11212001\I978600.raw

SEQUENCE LISTING

3 (1) GENERAL INFORMATION:

5 (i) APPLICANT: HERRNSTADT, CORINNA
6 PARKER, WILLIAM D.
7 DAVIS, ROBERT
8 MILLER, SCOTT W.

10 (ii) TITLE OF INVENTION: Diagnosis, Therapy and Cellular and
11 Animal Models for Diseases Associated With Mitochondrial
12 Defects

14 (iii) NUMBER OF SEQUENCES: 206

16 (iv) CORRESPONDENCE ADDRESS:

17 (A) ADDRESSEE: Kenyon & Kenyon
18 (B) STREET: 1025 Connecticut Avenue, N.W.
19 (C) CITY: Washington
20 (D) STATE: DC
21 (E) COUNTRY: USA
22 (F) ZIP: 20036-5405

24 (v) COMPUTER READABLE FORM:

25 (A) MEDIUM TYPE: Floppy disk
26 (B) COMPUTER: IBM PC compatible
27 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
28 (D) SOFTWARE: PatentIn Release #1.0, Version #1.30

30 (vi) CURRENT APPLICATION DATA:

C--> 31 (A) APPLICATION NUMBER: US/09/978,600
C--> 32 (B) FILING DATE: 15-Oct-2001
33 (C) CLASSIFICATION:

35 (vii) PRIOR APPLICATION DATA:

36 (A) APPLICATION NUMBER: 08/413,740
37 (B) FILING DATE: 30-MAR-1995
39 (A) APPLICATION NUMBER: PCT/US95/04063
40 (B) FILING DATE: 30-MAR-1995

42 (viii) ATTORNEY/AGENT INFORMATION:

43 (A) NAME: Bonham, David B.
44 (B) REGISTRATION NUMBER: 34297
45 (C) REFERENCE/DOCKET NUMBER: 2105/7

47 (ix) TELECOMMUNICATION INFORMATION:

48 (A) TELEPHONE: (202) 429-1776
49 (B) TELEFAX: (202) 429-0796

52 (2) INFORMATION FOR SEQ ID NO: 1:

54 (i) SEQUENCE CHARACTERISTICS:

55 (A) LENGTH: 1735 base pairs
56 (B) TYPE: nucleic acid
57 (C) STRANDEDNESS: double
58 (D) TOPOLOGY: linear

60 (ii) MOLECULE TYPE: other nucleic acid

62 (iii) HYPOTHETICAL: NO

64 (iv) ANTI-SENSE: NO

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69      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
71 AGAGGCCTAA CCCCTGTCTT TAGATTTTAC AGTCCAATGC TCACTCAGC CATTTTACCT      60
73 CACCCCCACT GATGTTTCGCC GACCGTTGAC TATTCTCTAC AAACCACAAA GACATTGGAA      120
75 CACTATACCT ATTATTCGGC GCATGAGCTG GAGTCCTAGG CACAGCTCTA AGCCTCCTTA      180
77 TTCGAGCCGA GCTGGGCCAG CCAGGCAACC TTCTAGGTAA CGACCACATC TACAACGTTA      240
79 TCGTCACAGC CCATGCATTT GTAATAATCT TCTTCATAGT AATACCCATC ATAATCGGAG      300
81 GCTTTGGCAA CTGACTAGTT CCCCTAATAA TCGGTGCCCC CGATATGGCG TTTCCCCGCA      360
83 TAAACAACAT AAGCTTCTGA CTCTTACCTC CCTCTCTCCT ACTCCTGCTC GCATCTGCTA      420
85 TAGTGGAGGC CGGAGCAGGA ACAGGTTGAA CAGTCTACCC TCCCTTAGCA GGGAACTACT      480
87 CCCACCCTGG AGCCTCCGTA GACCTAACCA TCTTCTCCTT ACACCTAGCA GGTGTCTCCT      540
89 CTATCTTAGG GGCCATCAAT TTCATCACA CAATTATCAA TATAAAACCC CCTGCCATAA      600
91 CCCAATACCA AACGCCCTC TTCGTCTGAT CCGTCTTAAT CACAGCAGTC CTACTTCTCC      660
93 TATCTCTCCC AGTCTAGCT GCTGGCATCA CTACTACTT AACAGACCGC AACCTCAACA      720
95 CCACCTTCTT CGACCCCGCC GGAGGAGGAG ACCCATTTCT ATACCAACAC CTATTCTGAT      780
97 TTTTCGGTCA CCCTGAAGTT TATATTCTTA TCCTACCAGG CTTCGGAATA ATCTCCATA      840
99 TTGTAACCTA CTACTCCGGA AAAAAAGAAC CATTTGGATA CATAGGTATG GTCTGAGCTA      900
101 TGATATCAAT TGGATTCTTA GGGTTTATCG TGTGAGCACA CCATATATTT ACAGTAGGAA      960
103 TAGACGTAGA CACACGAGCA TATTTACCT CCGCTACCAT AATCATCGCT ATCCCCACCG      1020
105 GCGTCAAAGT ATTTAGCTGA CTCGCCACAC TCCACGGAAG CAATATGAAA TGATCTGCTG      1080
107 CAGTGCTCTG AGCCCTAGGA TTCATCCTTT TCACCGTAGG TGGCCTGACT GGCATTGTAT      1140
109 TAGCAAACCT ATCACTAGAC ATCGTACTAC ACGACACGTA CTACGTTGTA GCCCACTTCC      1200
111 ACTATGTCTT ATCAATAGGA GCTGTATTG CCATCATAGG AGGCTTCATT CACTGATTTT      1260
113 CCCTATTCTC AGGTACACC CTAGACCAAA CCTACGCCAA AATCCATTTC ACTATCATAT      1320
115 TCATCGGCGT AAATCTAACT TTCTTCCAC AACACTTTCT CGGCCTATCC GGAATGCCCC      1380
117 GACGTTACTC GGACTACCCC GATGCATACA CCACATGAAA CATCCTATCA TCTGTAGGCT      1440
119 CATTCAATTC TCTAACAGCA GTAATATTAA TAATTTTCAT GATTTGAGAA GCCTTCGCTT      1500
121 CGAAGCGAAA AGTCCTAATA GTAGAAGAAC CCTCCATAAA CCTGGAGTGA CTATATGGAT      1560
123 GCCCCCACC CTACCACACA TTCGAAGAAC CCGTATACAT AAAATCTAGA CAAAAAAGGA      1620
125 AGGAATCGAA CCCCCAAAG CTGGTTTCAA GCCAACCCCA TGGCCTCCAT GACTTTTCA      1680
127 AAAAGGTATT AGAAAAACCA TTTCATAACT TTGTCAAAGT TAAATTATAG GCTAA      1735
129 (2) INFORMATION FOR SEQ ID NO: 2:
131      (i) SEQUENCE CHARACTERISTICS:
132          (A) LENGTH: 854 base pairs
133          (B) TYPE: nucleic acid
134          (C) STRANDEDNESS: double
135          (D) TOPOLOGY: linear
137      (ii) MOLECULE TYPE: other nucleic acid
139      (iii) HYPOTHETICAL: NO
141      (iv) ANTI-SENSE: NO
146      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
148 AGGTATTAGA AAAACCATTT CATAACTTTG TCGTCAAAGT TAAATTATAG GCTAAATCCT      60
150 ATATATCTTA ATGGACATG CAGCGCAAGT AGGTCTACAA GACGCTACTT CCCCTATCAT      120
152 AGAAGAGCTT ATCACCTTTC ATGATCACGC CCTCATAATC ATTTTCCTTA TCTGCTTCCT      180
154 AGTCCTGTAT GCCCTTTTCC TAACACTCAC AACAAAACTA ACTAATACTA ACATCTCAGA      240
156 CGCTCAGGAA ATAGAAACCG TCTGAACATC CCTGCCCCGC ATCATCCTAG TCCTCATCGC      300
158 CCTCCCATCC CTACGCATCC TTTACATAAC AGACGAGGTC AACGATCCCT CCCTTACCAT      360
160 CAAATCAATT GGCCACCAAT GGTACTGAAC CTACGAGTAC ACCGACTACG GCGGACTAAT      420
162 CTTCAACTCC TACATACTTC CCCCATTTAT CCTAGAACCA GGCGACCTGC GACTCCTTGA      480
164 CGTTGACAAT CGAGTAGTAC TCCCGATTGA AGCCCCCATT CGTATAATAA TTACATCACA      540

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166 AGACCTCTTG CACTCATGAG CTGTCCCCAC ATTAGGCTTA AAAACAGATG CAATTCCCCG 600
168 ACGTCTAAAC CAAACCACTT TCACCGCTAC ACGACCGGGG GTATACTACG GTCAATGCTC 660
170 TGAAATCTGT GGAGCAAACC ACAGTTTCAT GCCCATCGTC CTAGAATTAA TTCCCCTAAA 720
172 AATCTTTGAA ATAGGGCCCG TATTTACCCT ATAGCACCCC CTCTACCCCC TCTAGAGCCC 780
174 ACTGTAAAGC TAACCTAGCA TTAACCTTTT AAGTTAAAGA TTAAGAGAAC CAACACCTGT 840
176 TTACAGTGAA ATGC 854

178 (2) INFORMATION FOR SEQ ID NO: 3:
180 (i) SEQUENCE CHARACTERISTICS:
181 (A) LENGTH: 954 base pairs
182 (B) TYPE: nucleic acid
183 (C) STRANDEDNESS: double
184 (D) TOPOLOGY: linear
186 (ii) MOLECULE TYPE: other nucleic acid
188 (iii) HYPOTHETICAL: NO
190 (iv) ANTI-SENSE: NO
194 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
196 TCGCTGTCGC CTTAATCCAA GCCTACGTTT TCACACTTCT AGTAAGCCTC TACCTGCACG 60
198 ACAACACATA ATGACCCACC AATCACATGC CTATCATATA GTAAAACCCA GCCCATGACC 120
200 CCTAACAGGG GCCCTCTCAG CCCTCCTAAG TACCTCCGGC CTAGCCATGT GATTTCACTT 180
202 CCACTCCATA ACGCTCCTCA TACTAGGCCT ACTAACCAAC ACACCTAACCA TATACCAATG 240
204 ATGGCGCGAT GTAACACGAG AAAGCACATA CCAAGGCCAC CACACACCAC CTGTCCAAAA 300
206 AGGCCTTCGA TACGGGATAA TCCTATTTAT TACCTCAGAA GTTTTTTTCT TCGCAGGATT 360
208 TTTCTGAGCC TTTTACCACT CCAGCCTAGC CCCTACCCCC CAATTAGGAG GGCCTGGCC 420
210 CCGAACAGGC ATCACCCCGC TAAATCCCTT AGAAGTCCCA CTCCTAAACA CATCCGTATT 480
212 ACTCGCATCA GGAGTATCAA TCACCTGAGC TCACCATAGT CTAATAGAAA ACAACCGAAA 540
214 CCAAATAATT CAAGCACTGC TTATTACAAT TTTACTGGGT CTCTATTTTA CCTCCTACA 600
216 GCCTCAGAGT ACTTCGAGTC TCCCTTCACC ATTTCCGACG GCATCTACGG CTCAACATTT 660
218 TTTGTAGCCA CAGGCTTCCA CGGACTTCAC GTCATTATTG GCTCAACTTT CCTCACTATC 720
220 TGCTTCATCC GCCAACTAAT ATTTCACTTT ACATCCAAAC ATCACTTTGG CTTCGAAGCC 780
222 GCCGCCTGAT ACTGGCATTG TGTAGATGTG GTTTGACTAT TTCTGTATGT CTCCATCTAT 840
224 GATGAGGGTC TTAATCTTTT AGTATAAATA GTACCGTTAA CTTCCAATTA ACTAGTTTTG 900
226 ACAACATTCA AAAAAGAGTA ATAACTTCG CCTTATCAAC ACCCAATTTT AATA 954

228 (2) INFORMATION FOR SEQ ID NO: 4:
230 (i) SEQUENCE CHARACTERISTICS:
231 (A) LENGTH: 23 base pairs
232 (B) TYPE: nucleic acid
233 (C) STRANDEDNESS: double
234 (D) TOPOLOGY: linear
236 (ii) MOLECULE TYPE: other nucleic acid
238 (iii) HYPOTHETICAL: NO
240 (iv) ANTI-SENSE: NO
245 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
247 ACCTAGCAGG TGTCTCCTCT ATC 23

249 (2) INFORMATION FOR SEQ ID NO: 5:
251 (i) SEQUENCE CHARACTERISTICS:
252 (A) LENGTH: 27 base pairs
253 (B) TYPE: nucleic acid
254 (C) STRANDEDNESS: double
255 (D) TOPOLOGY: linear

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257      (ii) MOLECULE TYPE: other nucleic acid
259      (iii) HYPOTHETICAL: NO
261      (iv) ANTI-SENSE: NO
266      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
268 CAATTTTCATC ACAACAATTA TCAATAT                                27
270 (2) INFORMATION FOR SEQ ID NO: 6:
272      (i) SEQUENCE CHARACTERISTICS:
273          (A) LENGTH: 21 base pairs
274          (B) TYPE: nucleic acid
275          (C) STRANDEDNESS: double
276          (D) TOPOLOGY: linear
278      (ii) MOLECULE TYPE: other nucleic acid
280      (iii) HYPOTHETICAL: NO
282      (iv) ANTI-SENSE: NO
287      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
289 GCCATAACCC AATACCAAAC G                                        21
291 (2) INFORMATION FOR SEQ ID NO: 7:
293      (i) SEQUENCE CHARACTERISTICS:
294          (A) LENGTH: 23 base pairs
295          (B) TYPE: nucleic acid
296          (C) STRANDEDNESS: double
297          (D) TOPOLOGY: linear
299      (ii) MOLECULE TYPE: other nucleic acid
301      (iii) HYPOTHETICAL: NO
303      (iv) ANTI-SENSE: NO
308      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
310 AATCACAGCA GTCCTACTTC TCC                                    23
312 (2) INFORMATION FOR SEQ ID NO: 8:
314      (i) SEQUENCE CHARACTERISTICS:
315          (A) LENGTH: 25 base pairs
316          (B) TYPE: nucleic acid
317          (C) STRANDEDNESS: double
318          (D) TOPOLOGY: linear
320      (ii) MOLECULE TYPE: other nucleic acid
322      (iii) HYPOTHETICAL: NO
324      (iv) ANTI-SENSE: NO
329      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
331 TCACAGCAGT CCTACTTCTC CTATC                                25
333 (2) INFORMATION FOR SEQ ID NO: 9:
335      (i) SEQUENCE CHARACTERISTICS:
336          (A) LENGTH: 26 base pairs
337          (B) TYPE: nucleic acid
338          (C) STRANDEDNESS: double
339          (D) TOPOLOGY: linear
341      (ii) MOLECULE TYPE: other nucleic acid
343      (iii) HYPOTHETICAL: NO
345      (iv) ANTI-SENSE: NO
350      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
352 CAAAATCCAT TTCACTATCA TATTCA                                26

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Input Set : A:\09978600.raw.txt
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354 (2) INFORMATION FOR SEQ ID NO: 10:
356     (i) SEQUENCE CHARACTERISTICS:
357         (A) LENGTH: 25 base pairs
358         (B) TYPE: nucleic acid
359         (C) STRANDEDNESS: double
360         (D) TOPOLOGY: linear
362     (ii) MOLECULE TYPE: other nucleic acid
364     (iii) HYPOTHETICAL: NO
366     (iv) ANTI-SENSE: NO
371     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
373 TCATAGAAGA GCTATCACC TTTCA                                     25
375 (2) INFORMATION FOR SEQ ID NO: 11:
377     (i) SEQUENCE CHARACTERISTICS:
378         (A) LENGTH: 24 base pairs
379         (B) TYPE: nucleic acid
380         (C) STRANDEDNESS: double
381         (D) TOPOLOGY: linear
383     (ii) MOLECULE TYPE: other nucleic acid
385     (iii) HYPOTHETICAL: NO
387     (iv) ANTI-SENSE: NO
392     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
394 AGAGCTTATC ACCTTCATG ATCA                                     24
396 (2) INFORMATION FOR SEQ ID NO: 12:
398     (i) SEQUENCE CHARACTERISTICS:
399         (A) LENGTH: 18 base pairs
400         (B) TYPE: nucleic acid
401         (C) STRANDEDNESS: double
402         (D) TOPOLOGY: linear
404     (ii) MOLECULE TYPE: other nucleic acid
406     (iii) HYPOTHETICAL: NO
408     (iv) ANTI-SENSE: NO
413     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:
415 TGCCCGCCAT CATCCTAG                                         18
417 (2) INFORMATION FOR SEQ ID NO: 13:
419     (i) SEQUENCE CHARACTERISTICS:
420         (A) LENGTH: 18 base pairs
421         (B) TYPE: nucleic acid
422         (C) STRANDEDNESS: double
423         (D) TOPOLOGY: linear
425     (ii) MOLECULE TYPE: other nucleic acid
427     (iii) HYPOTHETICAL: NO
429     (iv) ANTI-SENSE: NO
434     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:
436 TGCCCGCCAT CATCCTAG                                         18
438 (2) INFORMATION FOR SEQ ID NO: 14:
440     (i) SEQUENCE CHARACTERISTICS:
441         (A) LENGTH: 21 base pairs
442         (B) TYPE: nucleic acid
443         (C) STRANDEDNESS: double

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/978,600

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Input Set : A:\09978600.raw.txt

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L:31 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]

L:32 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]